CDF Operations Report

First day of winter…
sunlight starts returning!
one more minute tomorrow…

JJ Schmidt

22-DEC-2003

All Experimenters' Meeting

HISTORY

- **Thursday, Dec. 4: Massive quench damages Tevatron.**
- **Dec. 6-12: Tevatron repairs, CDF pulls east plug to work on COT and Silicon.**
- **Friday, Dec. 12: Decision is made to move CDF low beta quads to lower IP by 3.8 mm.**
- **Saturday, Dec. 13: West side quads moved.**
- **Sunday, Dec. 14: East side quads moved.**
- **Wednesday, Dec. 17: Shot 3101 goes in very smoothly.**
  - **Pbar stack at record high of 245 mA.**
  - **Shot 90 mA and transfer efficiencies were very high.**
- **Dec. 18: Store 3103 even nicer.**
- **Dec. 20: Store 3108** ***-- Sat Dec 20 05:49:22 comment by...pete,rainer --*** **This is a piece of beauty. More of this, please. It's gotta be Xmas.** (CDF elog entry)

STORE SUMMARY

Start Date	Store	Duration (hours)	CDF Lum Initial e30 cm-2 s-1	Int. Lum Delivered nb-1	Live Lum nb-1	Eff.	Comment
We 12/17	3101	21	26.9	1238	705	57%	No Silicon
Th 12/18	3103	25	51.2	2244	1839	82%	Silicon At EOS
Sa 12/20	3108	2	53.7	328	138	42%	
Total		48		3810	2682	70%	

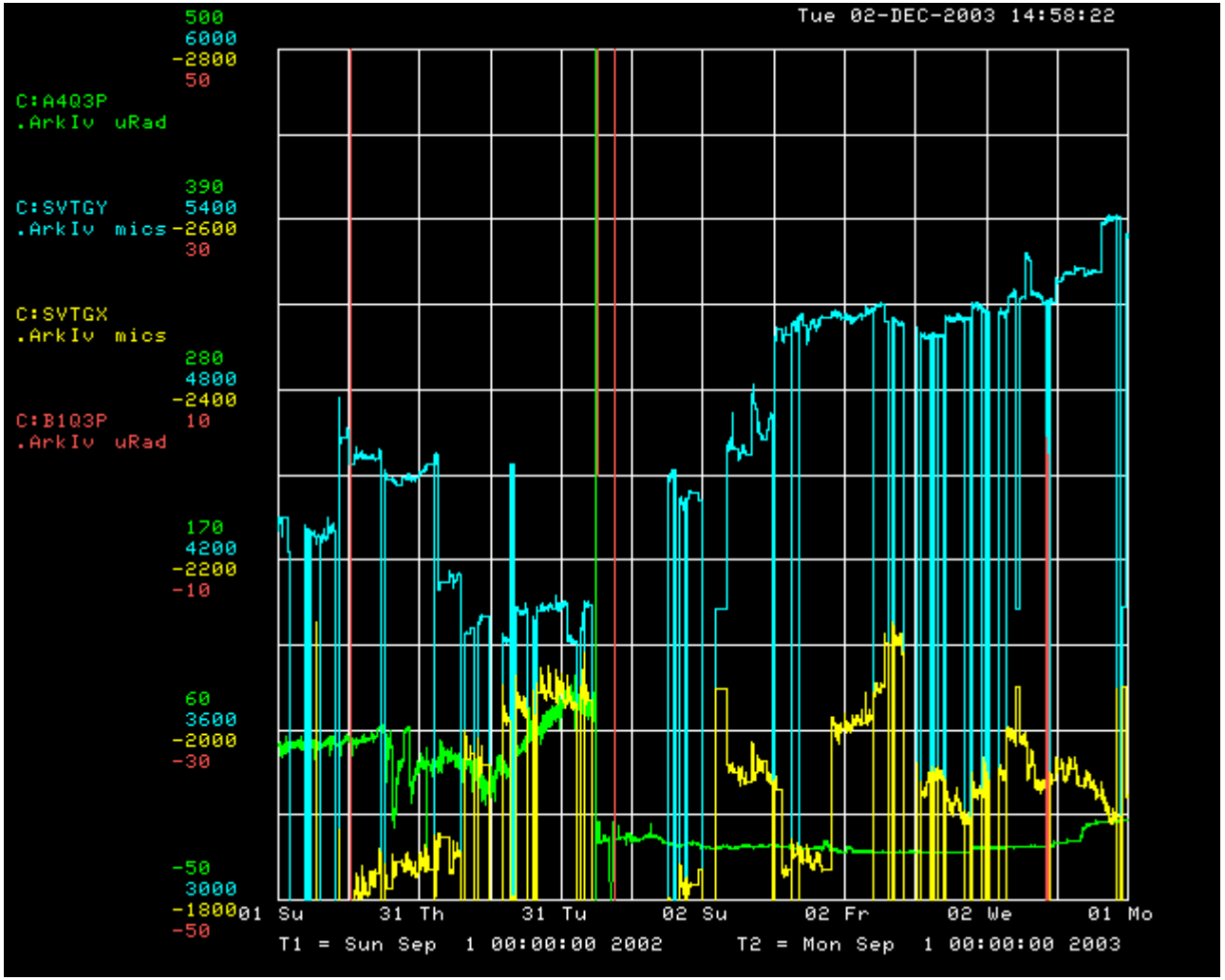
Store 3101: No silicon. Determine new beam position with COT tracks and update roads for XFT (Fast Tracker for COT). Accelerator does separator and A48 collimator studies at end of store.

Store 3103: Average luminosity record of 49.9E30 (not CDF). Record delivered and live luminosity. Silicon integrated smoothly for last hours of store.

Store 3108: Record CDF luminosity. Clean store, silicon integrated right away. "Growing pains" associated with high lum but nothing major.

In general: Once tests out of way, efficiencies good…

IP History for last year (September to September)



New Beam Position

- **SVT Vertex Position**

	x (cm)	y (cm)	dx/dz (mrad)	dy/dz (mrad)
Nov. 27	-0.1956	0.5763	0.724	0.336
Dec. 19	-0.2358	0.1501	0.777	0.119
Diff	-0.0402	-0.4262	0.053	-0.217

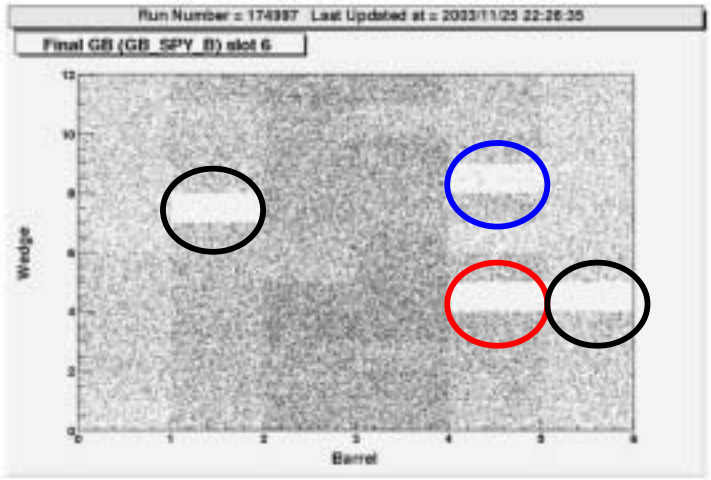
Other Status of Detector

- **COT – Repair to cell 86 in SL7 was successful.**
- **BUT – Two other cells (not adjacent to cell 86) have higher current draw than desired.**
- **We are working on these as we speak.**

Junction Card Blues (from Dec 4th Status Talk)

- One ladder death causes a hole in SVT coverage since two ladders are missing in that wedge.

- Likely common cause is a short in the Junction Card

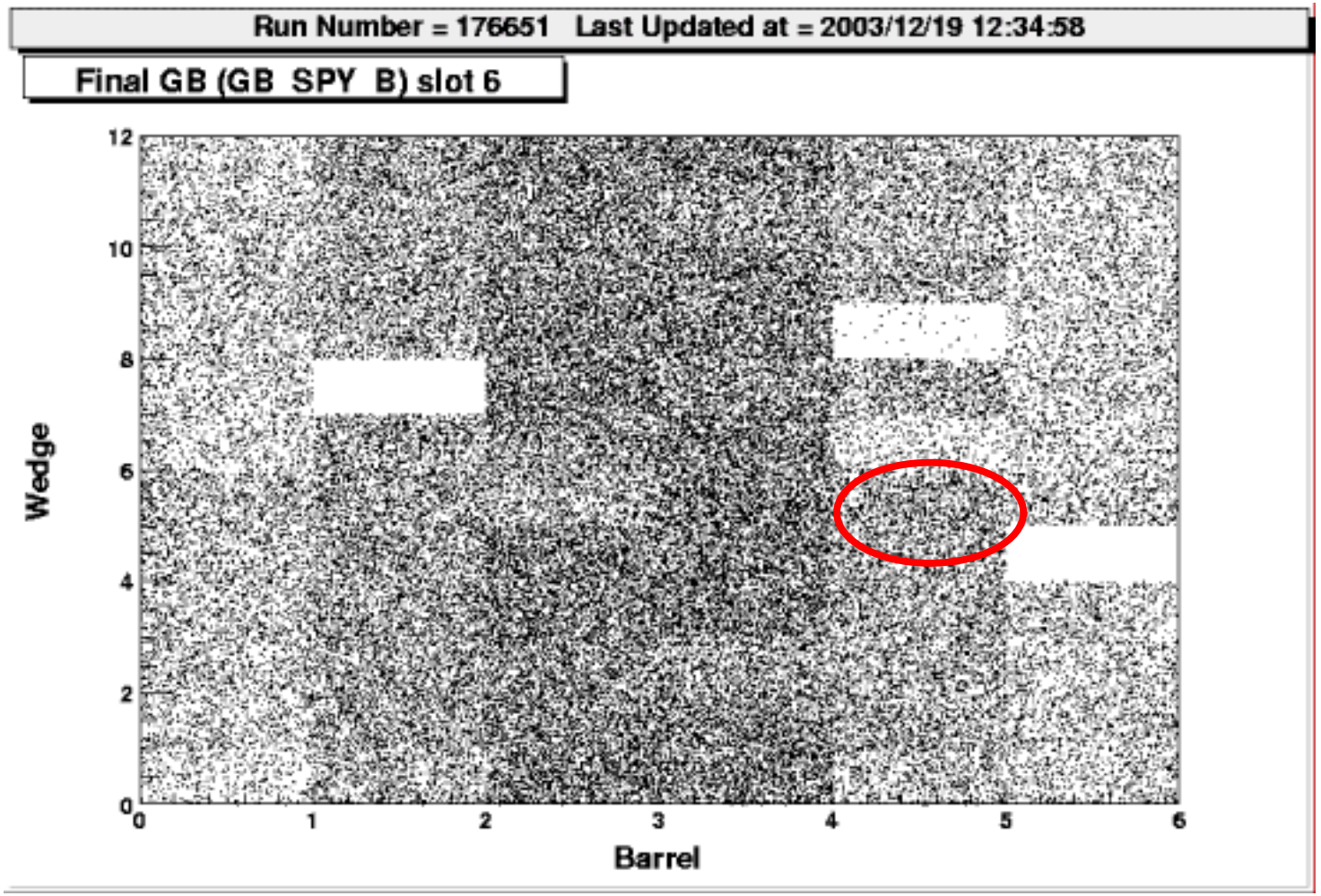


Black – dead SVX wedges
Blue - 2 ladders dead in SVX wedge
Red - New hole due to 2 dead ladders

If east bore access is granted, we can get 2 ladders back - but the operation is tricky.

We want to go for it and need 2 shifts of bore access to do the job.

Repair successful!



PLANS FOR REPAIR PERIOD

- **Will pull east plug to work on COT SL7.**
- **Small list of other detector fixes.**
- **Get ready for more high luminosity running.**
- **Happy Holidays!!**